

# WSPA Comments on Model Criteria for Groundwater Monitoring in Areas of Oil and Gas Stimulation



# INTRODUCTION

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- WSPA and its members have been working closely with staff to develop the new groundwater monitoring regulations required by Senate Bill 4.
- We appreciate the efforts by staff, and are committed to continuing this important regulatory process.
- These new regulations will comprise the most extensive and stringent regulations of groundwater monitoring and protection on hydraulic fracturing in the country.

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- They also are part of an entirely new and largely uncharted area of oversight for the state and regional water boards, which is why we feel it is so important that they be as carefully crafted as possible.
- WSPA has retained Terraphase Engineering, a highly regarded consultant in this area, to assist this effort and member companies have invested countless hours helping to develop this new body of regulation.
- Our testimony today is offered in the spirit of helping to design regulations that provide the highest level of confidence for all Californians that water quality is being properly protected and energy resources are being prudently provided to the citizens of California.

# WSPA Comments on Draft Model Criteria

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- Monitoring criteria should be commensurate with potential risk
- Criteria should be based on sound science
- Analyte list should be focused on relevant indicators
- Criteria should clearly exclude hydrocarbon-bearing zones
- Guidance should specify the regulatory process and schedule

# WSPA Comments on Draft Model Criteria

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- **Monitoring effort should be commensurate with potential risk**
  - Monitoring should be tiered based on consideration of
    - The duration of a stimulation stage (30 min to 2 hours)
    - Groundwater quality, depth, and feasibility of use as resource
    - Potential vertical pathways based on proximity
    - Vertical separation between stimulated zone and protected groundwater
    - Proximity to human population and public water service wells

# WSPA Comments on Draft Model Criteria

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- **Criteria should be adaptive as based on sound science**
  - Draft Criteria propose a “one-size-fits-all” approach
  - A “one-size-fits-all” approach does not work
    - One upgradient well, two downgradient wells, per aquifer, may not be supported by sound science in all situations
    - Each WST project is unique; monitoring approach should be based on a case-specific evaluation
    - An upgradient well does not add value
    - Evaluation must consider risk, potential pathways, and groundwater quality

# WSPA Comments on Draft Model Criteria

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- **Monitoring should focus on two key components**
  - Real-time monitoring to ensure casing integrity
  - Area-wide long-term monitoring to confirm zonal isolation

# WSPA Comments on Draft Model Criteria

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- **Analyte list should be focused on relevant indicators**
  - Draft Criteria require the analysis of at least 78 analytes, most of which are not indicators of WST fluids or hydrocarbons
  - Targeted list should be focused on best indicator parameters
  - List would be expanded if indicator parameters indicate potential release



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- **Model Criteria should clearly exclude hydrocarbon-bearing zones**
  - Draft Criteria appear to require formal exemption of zone for it to be excluded from monitoring
  - Documentation of hydrocarbon presence in zone should be sufficient to exclude from monitoring

# WSPA Comments on Draft Model Criteria

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- **Guidance should specify the regulatory process and schedule**
  - Draft Criteria do not specify the regulatory review period
  - Planning of stimulation and production will be negatively impacted without an established review schedule

# SUMMARY

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- Monitoring criteria should be based on sound science and should be commensurate with potential risk
- Operators should have option to propose an alternative monitoring plan that meets SWRCB concerns
- Analyte list should be focused on relevant indicators
- Model Criteria should clearly exclude hydrocarbon-bearing zones
- Guidance should specify the regulatory process and schedule
- WSPA appreciates the opportunity to work with staff to bring these important regulations to completion.

# SUMMARY

- WSPA appreciates the opportunity to work with staff to bring these important regulations to completion
- We share your commitment to protecting water quality and are proud of our industry's record of stewardship
- We look forward to a productive ongoing collaboration on these and other important issues

